

REMARKS

This application has been carefully reviewed in light of the final Office Action dated February 12, 2008. Claims 1 to 21 are in the application, of which Claims 10 to 21 are withdrawn from consideration. The independent claim under consideration is Claim 1. Reconsideration and further examination are respectfully requested.

Claims 1 to 9 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,238,808 (Arao). Reconsideration and withdrawal of the rejection are respectfully requested.

The present invention generally concerns a zinc oxide film formed on a substrate. The film includes a plurality of texture constituents, comprised of a plurality of hills each having a structure wherein a first surface borders on a second surface along one curved line.

According to one aspect of the invention, the first surfaces have an average angle of inclination from 30 to 60 degrees and the second surfaces have an average angle of inclination from 10 to 35 degrees for at least a half of the plurality of texture constituents.

By virtue of this arrangement, it is ordinarily possible to obtain a higher optical confinement effect.

Referring specifically to claim language, independent Claim 1 is directed to a zinc oxide film formed on a substrate. The film includes a plurality of texture constituents comprised of a plurality of hills each having a structure wherein a first surface borders on a second surface along one curved line. The first surfaces have an average angle of inclination from 30 to 60 degrees and the second surfaces have an average angle of inclination from 10 to 35 degrees for at least a half of the plurality of texture constituents.

The applied art is not seen to disclose or suggest the features of present invention, and in particular is not seen to disclose or suggest at least the feature of a plurality of hills each having a structure wherein a first surface borders on a second surface along one curved line, wherein the first surfaces have an average angle of inclination from 30 to 60 degrees and the second surfaces have an average angle of inclination from 10 to 35 degrees for at least a half of the plurality of texture constituents.

Arao is directed to a substrate with a zinc oxide layer having a c-axis perpendicular to the support substrate and a zinc oxide layer having a c-axis slantidicular to the support substrate. See Arao, Abstract.

Page 3 of the Office Action asserts that Arao (Claim 1, Column 17, lines 63 to 66 and Column 5, lines 35 to 36) discloses that a c-axis of ZnO grains can be at angles from 15° up to 40° from the substrate normal (or 50° to 75° from the substrate plane), and that facets disposed at 90° from the first surface will be at angles 50° to 75° from the substrate normal (or 15° to 40° from the substrate plane).

However, the cited portions of Arao simply state that when the thickness of the crystal is over 1 μm , the inclination by AFM becomes far greater than 20°, and sometimes reaches 40°. Arao, Column 17, lines 63 to 60. An average of the inclination angles of the crystal grains in a surface of a second zinc oxide layer on an opposite side of the support substrate is not less than 15°. See Arao, Column 24, lines 58 to 61. Nevertheless, the cited portions are not seen to disclose a plurality of hills each having a structure wherein a first surface borders on a second surface along one curved line, wherein the first surfaces have an average angle of inclination from 30 to 60 degrees and the second surfaces have an average angle of inclination from 10 to 35 degrees for at least a half of the

plurality of texture constituents.

Therefore, independent Claim 1 is believed to be in condition for allowance, and such action is respectfully requested.

The dependent claims under consideration are also submitted to be patentable because they set forth additional aspects of the present invention and are dependent from the independent claim discussed above. Therefore, separate and individual consideration of each of these dependent claims is respectfully requested.

No other matters being raised, the entire application is believed to be fully in condition for allowance, and such action is courteously solicited.

Applicants' undersigned attorney may be reached in our Costa Mesa, California, office by telephone at (714) 540-8700. All correspondence should be directed to our address given below.

Respectfully submitted,

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